

it also under slabs of rock in dense scrub of Grampians snow gum (*Eucalyptus alpina*) at Mirranatwa Gap, Grampians Ranges, western Victoria. I have also found numerous workers after rains under logs and grass tree stumps in mallee heath and *Casuarina stricta* scrub near the Ravine des Casoars, western Kangaroo Island, South Australia; the latter is apparently the most westerly known record.

A. longidens varies considerably in size, and many specimens have the head and alitrunk deeply infuscated, but the dentition remains constant; no intergrades to *A. ferruginea* have been seen. The distributional pattern shown by these two species is a curious one, and unaccountable when the seeming lack of barriers or major ecological differences is taken into account. There does seem to be a difference in moisture preferences, with *A. longidens* tolerating drier sites; but why *A. ferruginea* remains known from such a restricted area is a mystery. The distribution of *ferruginea* in and around Melbourne is almost that of an introduced species, and this latter possibility must not be ruled out entirely until the relationship of *ferruginea* to the very similar *A. clarki* Wheeler of southwestern Australia has been thoroughly studied.

Undescribed Species of Crane-Flies from the Western United States and Canada (Dipt.: Tipulidae) Part XIII

By CHARLES P. ALEXANDER, University of Massachusetts,
Amherst, Massachusetts

(Continued from page 237)

Erioptera (*Symplecta*) *sunwapta* new species

General coloration gray, the praescutum with three narrow darker brown stripes; wings with the ground rather strongly infuscated; abdomen dark brownish gray, the lateral borders

conspicuously yellow; male hypopygium with the outer dististyle expanded outwardly, bearing a powerful erect spine on outer margin before tip, together with a smaller subapical spine; gonapophysis a simple blackened horn.

♂. Length about 4.8–5.2 mm.; wing 5.5–6 mm.

♀. Length about 5.5 mm.; wing 6 mm.

Rostrum brown, yellowed beneath; palpi brownish black. Antennae black throughout; flagellar segments oval, subequal in length to the verticils, the outer segments more elongate. Head dark gray; eyes (male) large, narrowing the vertex.

Pronotum brown; pretergites yellow. Mesonotal praescutum light brown, with three narrow darker brown stripes, these subequal in width to the interspaces, humeral region more yellowed; posterior sclerites more pruinose, the scutal lobes patterned with darker brown, the posterior callosities yellow; a dark central spot at base of scutellum. Pleura gray, the dorsopleural membrane yellowed behind. Halteres with stem light yellow, its outer third, with the knob, dark brown. Legs with the coxae pruinose; trochanters brownish yellow; remainder of legs brownish black to black. Wings rather strongly infuscated, patterned with darker brown, including spots at origin of R_s , Sc_2 , cord and outer end of cell $1st\ M_2$, tip of R_{1+2} and the supernumerary crossvein, and as paler and more diffuse clouds in cell $1st\ A$ adjoining vein $2nd\ A$, at near midlength and again before the tip; veins brown. Venation: Sc_1 ending just beyond level of R_2 , Sc_2 about opposite one-third the length of R_s ; supernumerary crossvein in cell R_3 opposite tip of vein R_{1+2} ; $m-cu$ approximately one-half its length before fork of M ; vein $2nd\ A$ strongly sinuous.

Abdomen dark brown, gray pruinose, the lateral borders of the segments conspicuously yellow; hypopygium fulvous to brownish fulvous. Male hypopygium with the outer dististyle expanded outwardly, bearing a powerful erect spine on outer margin before tip, with a smaller subapical spine; lower edge of style back from apex elevated into a low flange. Inner dististyle subequal in length, appearing as a slender sclerotized rod, its apex obtuse. Gonapophysis a simple blackened horn, the outer

surface with short setae. Phallosome forking into two blades, each of which is produced into two slightly unequal parts.

Habitat. ALBERTA. *Holotype*: ♂, Sunwapta Pass, on the exact border between the Banff and Jasper National Parks along the highway, altitude 6,670 feet, July 21, 1949 (C. P. Alexander). *Allotopotype*: ♀, pinned with type. *Paratopotypes*: Numerous specimens, several unmounted, July 21, 26, August 5, 1949 (C. P. Alexander).

This very distinct fly is readily told from the related regional species, *Erioptera* (*Symplecta*) *cana* (Walker) and *E. (S.) hybrida* (Meigen), by the very different male hypopygium. The fly was not uncommon in the wet boggy meadows at the Pass, in both the Banff National Park and Jasper National Park. This is in the drainage of the North Saskatchewan River, through Hilda and Nigel Creeks. The specimens were swept from the tundra-like vegetation, including dwarf birch and willow, with grasses and sedges. Conditions were cold and bitter, even on sunny days, since the glaciers of Mount Athabasca and the Columbia Icefield are close at hand.

Molophilus (Molophilus) fenderi new species

Belongs to the *plagiatus* group; general coloration brownish black, sparsely pruinose; antennae (male) approximately one-half as long as the wing; male hypopygium with the basal dististyle a massive blackened structure, its main axis a powerful spine, at near midlength on outer face with a subappressed spine.

♂. Length about 3.5 mm.; wing 4 mm.; antenna about 2 mm.

Rostrum, palpi and head brownish black. Antennae (male) elongate, as shown by the measurements, black throughout; individual segments fusiform, their apices somewhat more narrowed than the bases; verticils exceeding the segments; in addition to the verticils, the segments with several long yellow setae, the longest subequal to the segments.

Thorax brownish black, the surface sparsely pruinose, the scutellum and postnotum more conspicuously so; pretergites narrowly testaceous yellow. Halteres yellow. Legs with the

coxae testaceous yellow, trochanters clearer yellow; remainder of legs dark brown to brownish black, the femoral bases obscure yellow. Wings with a strong blackish tinge, the veins and trichia darker. Venation: R_2 lying some distance beyond the level of $r-m$; $m-cu$ about one-half the petiole of cell M_3 ; vein $2nd\ A$ moderately sinuous, ending shortly beyond the level of $m-cu$.

Abdomen, including hypopygium, black. Male hypopygium with the beak of the ventral dististyle slender, straight, blackened. Outer dististyle with the arms slightly unequal, the inner one slightly longer and more slender. Basal dististyle a massive blackened structure, the main axis a powerful gently curved spine, at near midlength on outer face with a subappressed black spine that is about half as long as the axial one. In the type, the axial arm bears a very small point or tooth on lower margin a short distance back from the tip.

Habitat. CALIFORNIA, OREGON. *Holotype:* ♂, Castle Creek Forest Camp, Shasta National Forest, Shasta County, California, July 30, 1950 (C. P. Alexander). *Paratype:* 1♂, Beaver Sulphur Creek, Rouge River National Forest, Siskiyou Mountains, Oregon, altitude 1,750 feet, August 10, 1950 (K. M. Fender).

I take great pleasure in naming this distinct fly for Kenneth M. Fender, in remembrance of an outstanding excursion through the Oregon Siskiyou in August 1950. This, the most northerly member of the group in western North America, is readily told from related species, including *Molophilus (Molophilus) palomarius* Alexander, *M. (M.) sequoiae* new species, and *M. (M.) stolidus* Alexander, by the structure of the male hypopygium.

***Molophilus (Molophilus) sequoiae* new species**

Very similar in its general appearance to *M. (M.) palomarius* Alexander and *M. (M.) stolidus* Alexander, differing in the structure of the male hypopygium. Beak of the ventral dististyle long and slender, straight or virtually so. Outer dististyle with the outer arm a little shorter and stouter than the inner. Basal dististyle a strong curved arm that narrows into a long straight spine, on outer margin at near three-fourth the length

with a strong appressed spine that is approximately one-third as long as the apex; surface of style with more than a dozen punctures, mostly on the proximal two-thirds but with at least one beyond the lateral spine.

In *palomaricus* (Southern California: Palomar Mountain), the beak of the ventral dististyle is slender and straight. Basal dististyle an unusually long and very slender gently curved simple rod that narrows to an acute point. I had originally considered *sequoiae* as representing a paratype of *palomaricus* but now consider them as being sufficiently distinct (Bull. Southern California Acad. Sci. 46: 48, 1947).

In *stolidus* (Arizona: White Mountains), the beak of the ventral dististyle is stout and cleaver-like. Basal dististyle with an outer spine, somewhat as in the present fly, the apical spine much shorter; outer surface of style microscopically scabrous.

Habitat. CALIFORNIA. *Holotype:* ♂, Sequoia National Park, near entrance on Route 198, altitude 4,000 feet, July 18, 1946 (C. P. Alexander).

Periodical Cicada in New Jersey in 1952

In an area, of numerous gravelly knolls, along the eastern side of route 34 about one-half way between Allenwood Circle and where route 34 crosses route 35 (Monmouth County) the periodical cicada appeared in large numbers during the last of May, 1952. By June 12 they were still numerous and noisy. During the two comparatively cooler days of June 23 and 24 they disappeared. By July 3 much terminal twig injury, due to oviposition, was apparent on the oaks. According to the injury to the oaks the infested area was about one mile square principally on the eastern side of route 34, with much less injury on the western side. Other observers who visited the area at the peak of the infestation and before twig injury appeared thought the infested area was at least two miles square.

According to C. L. Marlatt (The Periodical Cicada, Bull. 71. U. S. D. A., 1907) Brood IX, due in 1952, covers a compact